

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

---

ON THE TAXONOMIC STATUS OF THREE SPECIES  
OF LIZARDS OF THE GENUS *SCELOPORUS* FROM  
MEXICO AND SOUTHERN UNITED STATES.

BY HOBART M. SMITH,  
*University of Kansas, Lawrence, Kansas.*

---

The study of the lizards of the genus *Sceloporus* in the collection which Dr. Edward H. Taylor and myself<sup>1</sup> secured in Mexico during the summer of 1932 has revealed the presence of a number of extremely interesting forms, three of which are discussed in this paper. *Sceloporus jalapæ* Günther, which has in the past been synonymized with *graciosus*, is found to be valid. *Sceloporus marmoratus* Hallowell is shown to be a distinct northern subspecies of *Sceloporus variabilis* Wiegmann. A striking sexual dimorphism, not hitherto noted, has been discovered in *S. couchii* Baird, and the external morphology of this species has given a very interesting clue to the relationship of *Sceloporus* to *Uta*. These points are discussed in detail in the following.

*Sceloporus jalapæ* Günther.

Text Fig. 1.

*Sceloporus graciosus* Boulenger 1885, pp. 230-231 (*part.*).

Günther 1890, p. 71 (*part.*).

Boulenger 1897, pp. 507-508 (*part.*).

*Sceloporus graciosus* Cope 1885, p. 379 (*non* Baird and Girard).

Cope 1900, pp. 386-389 (*part.*).

*Sceloporus jalapæ* Günther 1890, p. 74.

Nine specimens of this rare species were collected, in the following localities: two (nos. 3160, 3161) about 10 miles south of Cañada de Morelos,

---

<sup>1</sup> Unless otherwise indicated, the catalogue numbers refer to specimens in this collection. Those numbers preceded by KU refer to specimens in the collection of the Dyche Natural History Museum of the University of Kansas.

Puebla, on July 24, 1932; one (no. 3120) 10 miles northeast of Tehuacán, Puebla, on July 23; three (nos. 3207, 3208, 3319) near Zapotitlán, Puebla, on July 27; two (nos. 3213, 3214) near Chazumba, Oaxaca, on July 28; one (no. 3339) near Tehuacán, Puebla, on July 30; all collected by Edward H. Taylor and Hobart M. Smith.

The specimens represented in this series agree perfectly, aside from minor discrepancies due to the much discolored specimen which Günther described, with the type description of *jalapæ* except in two respects, both of which were mistakes made by Günther, and which were satisfactorily corrected by Boulenger (1897, p. 508). The former author, contrary to the general procedure, counted the dorsal scales "from a line connecting the two lateral collar-folds to one connecting the hinder side of the thighs." By this method he counted 38, while Boulenger (*loc. cit.*) counted 52, beginning at the occiput.

In the second point, Günther states that the two series of femoral pores meet in the median line. Boulenger corrects this also by stating that they are separated by one scale.

Thus modified, the description of *jalapæ* is in exact accord with the character of our own specimens.

Aside from the specimen from Jalapa, collected by Höge, which is the type of *jalapæ*, there are two other specimens mentioned by Boulenger (*loc. cit.*) and also synonymized by him with *graciosus* (= *graciosus*), which I have considered as *jalapæ*. These are from Puebla, obtained from Boucard. Judging from the similarity in scale counts and measurements of these two specimens and the type of *jalapæ*, and from the differences exhibited between these three and the other specimens of *graciosus* in Boulenger's table, they are the same as *jalapæ*.

How Günther disposed of these two specimens in *Biologia* is difficult to state. Probably they are the specimens from Putla, obtained from Boucard, placed under *graciosus*. This author mentioned also under this species specimens from Matamoros Izucar (Puebla) and Jalapa (Vera Cruz), collected by Ferrari-Perez. These records are undoubtedly based upon Cope's (1885, p. 379), derived from the specimens in the collection of the Comision Cientifica. This author also considered them as *graciosus*. He mentioned the specimens again in his work of 1900 (p. 388), where he remarks, in the discussion of *graciosus*, "I have observed a slight variety of it from near the city of Jalapa, Mexico, in the collection of the Comision Geographica et Exploradora of Mexico."

In spite of certain resemblances of *jalapæ* to *graciosus*, it is beyond all reason that the same species should exist in two isolated localities separated by a thousand miles or more. There is, moreover, on the basis of differences in scalation, very definite evidence available of their separate identity, as shall be shown later.

Since accurate and complete descriptions of *jalapæ* are not available, the following descriptions are in order:

*Diagnosis*.—A small *Sceloporus*, maximum snout to vent measurement 51.0 mm.; head shields weakly striated or keeled, or nearly smooth; frontal usually transversely divided (entire in one); two canthals; dorsal scales

from occiput to base of tail 52 to 62; dorsals much larger than ventrals, in longitudinal rows slightly diverging posteriorly, strongly keeled and mucronate; ventrals smooth; laterals intermediate in size between ventrals and dorsals, keeled, arranged in oblique rows, and usually somewhat differentiated from the dorsals; length of 4th toe from base of 5th approximately equal to distance from snout to lateral cervical fold; scales on anterior border of ear very large, the median much larger than the others and extending completely across ear opening; femoral pores 17 to 20, the two series meeting in the median ventral line or separated by one to three scales.

*Description of a representative male (no. 3161).*—Cephalic scales in prefrontal and anterior supraorbital region weakly striated or keeled, the remainder smooth or slightly rugose; frontal transversely divided; two frontoparietals, in contact in front of occipital, separating the frontal from the parietals and occipital; four small parietals on each side of occipital; 5-6 enlarged supraoculars, bounded medially by a row of small scales, and separated from the superciliaries by at least one row of scales; scales in anterior third of supraorbital region small, extending posteriorly next to the superciliaries beyond the third supraocular; a pair of large internasals, in contact with rostral and nasal scutes, and bounded posteriorly by another pair of scales nearly as large; nasals contacting rostral; two canthal scales, much broader than long; one to two rows of flattened, keeled scales bordering the upper labials above; three or four suboculars, the median much longer than the others, followed anteriorly by a more or less triangular subocular which contacts the posterior canthal and a small square loreal; 5-6 upper and 7 lower labials, weakly keeled; a series of about three enlarged postmentals, the anterior pair in contact medially; temporal scales small, keeled; ear bordered anteriorly by about five large, elongate, smooth scales, the median much the largest and extending completely across the ear opening; lateral cervical fold rather weak, the scales between it and the ear and the shoulder small, almost granular except immediately above the fold; no indication of a posterior gular fold such as exists in *couchii*; scales above insertion of foreleg granular, those in and immediately behind axilla smooth, flat, squamous and quite small; lateral scales keeled and mucronate, larger than ventrals, smaller than dorsals, directed upward in oblique rows; ventrals smooth, those on the posterior portion of the body weakly notched at apex; scales in groin small but squamous; dorsal scales of limbs about as large as median laterals, keeled and slightly mucronate; ventral scales of limbs, except on feet, smooth; ventrals on femur about equal in size to those on belly; ventrals on tibiae as large as its dorsals; ventrals on foreleg small, somewhat larger on forearm; posterior femorals granular, extending almost halfway across dorsal surface of femora; no dermal fold behind insertion of hind leg; scales above and behind insertion of hind leg granular; ventral scales on base of tail behind anus smooth; dorsal caudals somewhat larger than dorsals on body, mucronate and strongly keeled; postanals enlarged; lamellæ under the 1st to the 5th toes 9-11-17-22-13 respectively.

Head light blue above and on sides; a broad lateral dark band beginning above tympanum and extending above foreleg to upper groin; an indistinct

white line bordering the lateral dark band below axilla and groin; a black spot on shoulder, extending narrowly a short distance onto the upper arm; a bright white line beginning at upper edge of tympanum, bordering the lateral dark band below, separating it from the black spot on shoulder, terminating above the anterior border of the insertion of the foreleg; black spot on shoulder connected with lateral black band above insertion of foreleg; a broad light blue band bordering the dark band above; a broad light blue median dorsal band, slightly darker than the lateral light blue bands bordering it; about 12 rounded black spots situated on the sides of the median dorsal band, in a series beginning above the lateral cervical folds and terminating at the base of the tail, each spot connected with the lateral dark band by a narrow, black line curved anteriorly; sides of abdomen, between fore and hind legs, blue, darker on the median ventral border; ventral surfaces of limbs, breast, tail and a median ventral abdominal line three to eight scales wide, whitish; anterior part of gular region closely stippled with light blue and black; dorsal surfaces of limbs grayish blue; posterior surfaces of femora with a few distinctly outlined, white spots.

*Variations.*—The prefrontal scales are extremely variable; the frontal in one is entire; in another the posterior frontal is in contact with the occipital; the parietals are usually three on each side. The keeling of the cephalic scales is also variable. In some specimens, all the scales are quite smooth except those bordering the supraoculars. These are keeled or striated in all nine specimens. The scales in the nasal region are quite constant in their relation to each other. Each nasal is extended to the rostral, and between these are two large internasals which broadly contact the rostral.

The coloration of the males varies but little from the above description. The females, however, are quite different. The general color is brownish, with a lighter band beginning at the posterior border of the orbit and passing to the base of the tail. Crossing this light band, and extending medially for a short distance, but separated from the series on the opposite side by several scale rows, is a series of 12 or 13 narrow, undulating, dark brown cross bars, sometimes bordered behind by lighter brown; the limbs are very dark, banded with alternate light and dark brown; the ventral surfaces of the limbs and abdomen are whitish, and sometimes, on abdomen, with a light bluish suffusion; the anterior part of the gular region is very dimly marked with light blue. There is no black spot on the shoulder.

The ventral scales in front of the anus and on the base of the tail of females are smooth.

*Relationships.*—The females bear a remarkable resemblance to certain specimens of *æneus*, although the males do not. The species differs markedly from *æneus* and *scalaris*, however, in the smaller number of dorsal scales, presence of large scales on the anterior border of the ear, less rugose head shields, obliquely arranged rows of laterals, much different character of the scales in the nasal region, longer hind limbs (with respect to *æneus*), much longer 4th toe, different coloration in the males, and numerous other characters. The scales in the nasal region bear further mention.

In *æneus* and *scalaris* the nasals and internasals are small and are separated from the rostral by a row of two or four narrow scales, while in *jalapæ* they contact the rostral.

It is possible that *jalapæ* is related to the *variabilis* group, as indicated by the slightly rugose head shields, small laterals differentiated from the dorsals, large number of dorsals from the occiput to the base of the tail, femoral pores meeting or nearly meeting on the median ventral line, etc., but the relationship is not close. The dermal fold behind the insertion of the hind leg, it may be noted in this connection, is absent in *jalapæ*.

Since numerous authors have confused this species with *graciosus*, the following comparisons are offered. In *graciosus* there is a series of scales separating the nasals and internasals from the rostral; the head shields are smooth; there are five or six somewhat enlarged scales on the anterior border of the ear; the femoral pores do not extend onto the preanal region; the females resemble the males quite closely except in ventral markings. In *jalapæ* the nasals and internasals contact the rostral; the head shields are keeled or striated; there are only two or three scales on the anterior border of the ear, and these are very large, the largest extending across the tympanum; the femoral pores extend far onto the preanal region and are separated by none or only from one to three small scales; the females appear quite different from the males.

The most conspicuous point of resemblance of these two species to each other is in the color pattern. The scale counts from occiput to base of tail are approximately the same also, and the adult specimens are of about the same size, although *jalapæ* apparently is somewhat smaller.

MEASUREMENTS AND SCALE COUNTS OF *Sceloporus jalapæ* Günther.

Number.....	3160	3319	3208	3161	3120	3207	3213	3214	3339
Snout to vent.....	42.0	43.0	44.0	44.5	45.0	46.5	47.5	47.5	51.0
Tail.....	—	68.0	—	58.0	71.0	—	55.0	68.0	65.0
Snout to occiput.....	8.5	9.5	8.5	9.5	9.25	8.5	9.5	—	9.5
Snout to ear.....	10.0	11.5	10.5	11.0	11.5	10.5	11.0	—	12.0
4th toe.....	10.5	15.5	13.0	12.5	14.0	13.0	12.0	15.0	13.0
5th toe.....	4.5	6.75	5.0	5.5	6.0	6.0	5.5	7.5	6.0
Tibia.....	8.5	11.0	9.0	9.5	10.0	9.5	10.0	11.0	10.0
Dorsals.....	57	52	62	61	52	59	58	58	59
Scales about body.....	56	58	54	64	57	59	54	59	55
Scales to shielded part of head.....	14	13	13	14	13	12	10	—	12
Femoral pores.....	?	17-17	?	19-20	20-20	?	?	19-21	20-20
Scales between series of pores.....	1	3	?	0	0	?	?	1	2
Sex.....	♀	♂	♀	♂	♂	♀	♀	♂	♂

*Sceloporus variabilis marmoratus* (Hallowell).

A series of 51 *variabilis* are in the collection, from Mexico. All but one of these are typical *variabilis variabilis*, and were collected in the tropical or subtropical areas of Mexico, but the other (No. 4620, from 31 miles south

of Sabinas Hidalgo, Nuevo León, September 1, 1932) is comparable to the *variabilis* of the semi-arid regions of southern United States, which may be distinguished as *variabilis marmoratus*.

Sixty-five specimens of *v. marmoratus*, all from Texas save the one mentioned above, have been available for comparison with the southern Mexico form. A number of obvious differences, as in color and size, are discernible upon gross examination. Scale counts of 30 specimens of each subspecies have revealed a number of other differences of importance.

*V. marmoratus* may be diagnosed as follows: A *Sceloporus* with rugose or keeled cephalic plates; a deep fold at posterior margin of insertions of hind legs; lateral scales smaller than either dorsals or ventrals, in oblique rows; ventrals of about the same size as dorsals, or slightly smaller; 15 to 21, average 16.7, rows of enlarged dorsals; 62-68, average 65.0, dorsal scales from the occipital to base of tail at posterior margins of hind legs; maximum length, snout to vent, 52.5 mm. in males, 49.5 mm. in females; dorsal markings of adult males and females not greatly different, most distinct in males; adult males with a pink area on each side of belly, bordered anteriorly and posteriorly by dark blue.

*V. marmoratus* differs from *v. variabilis* as follows: dorsal scales smaller, averaging 10.7 scales more from occiput to base of tail (48 to 60, average 54.3 in *v. variabilis*); number of longitudinal rows of dorsals at middle of body greater, averaging 2.64 more (12-15, average 14.06 in *v. variabilis*); lesser maximum length from snout to vent, a 16.5 mm. difference in males, 13.5 mm. in females (69.0 mm. in males, 63.0 mm. in females, of *v. variabilis*); much less total bulk of body, a male of maximum size of *v. marmoratus* being less than half the total maximum of *v. variabilis*. In *v. marmoratus*, adults of the two sexes closely resemble each other in dorsal color pattern. The most conspicuous difference is in the lateral stripes, which are much more distinct in males; the lateral cross-bars, however, are equally distinct in the two sexes. In *v. variabilis* much the same dimorphism takes place, except that adult males lose the lateral cross-bars almost entirely, so that the dorsum, between the bright lateral stripes, is almost uniform brown, with sometimes a lighter median streak.

There is considerable variation in the number of rows of enlarged dorsals in the northern subspecies, largely due to the occasional lack of sharp differentiation between the laterals and the dorsals. In these occasional specimens, of either sex, the rows of laterals are not so obliquely placed as in others, and the individual scales gradually enlarge dorsally. Such an occasional lack of sharp differentiation between laterals and dorsals apparently does not occur in *v. variabilis*.

*V. marmoratus* is typical of semi-arid regions, where it frequents the limbs of mesquite and other scrubby trees. Strecker (1922) remarks that he has found it on limestone bluffs, and that it occurs also on *Opuntia*. They are usually shy, wary creatures difficult to collect. *V. variabilis*, however, is native to tropical or subtropical regions, and is quite bold and noisy in movement.

The following distributional records of *v. marmoratus* are available.

TEXAS.

Bandera County (Strecker, 1915).

Bexar County:

Helotes (Stejneger, 1891; KU 11005-11008; EHT & HMS, 5 spec.).

San Antonio (Hallowell, 1854; Stejneger, 1891).

Somerset (KU 15355).

Duval County:

San Diego (Cope, 1888).

20 miles W. of San Diego (EHT & HMS, 3 spec.).

El Paso County:

El Paso (KU 15572).

Frio County:

Near Dilley (KU 12468, 15192-15198).

Near Pearsall (EHT & HMS, 225-226).

Jim Wells County:

36 miles N. of Falfurrias (EHT & HMS, 4 spec.).

11 miles N. of Falfurrias (EHT & HMS, 3 spec.).

La Salle County:

15 miles N. of Encinal (KU 15204-15206).

Live Oak County (Strecker, 1915):

Near George West (EHT & HMS, 1 spec.).

Medina County (Baird, 1859b).

Nueces County:

Near Corpus Christi (Cope, 1888).

Starr County:

Redmond's Ranch (Baird, 1859b; Stejneger, 1891).

Near Rio Grande City (EHT & HMS 4787-4795, 4905-4912; KU 12467, 15199-15203, 15354).

MEXICO.

The only specimen in our collection from Mexico is number 4620, from a locality 31 miles S. of Sabinas Hidalgo, Nuevo León. On the basis of geographical probabilities, it may be assumed for the present that the following locality records are based upon specimens of *v. marmoratus*:

Chihuahua:

30 miles S. of El Paso (Strecker, 1915).

Coahuila (Boulenger, 1897).

Nuevo León:

China (Stejneger, 1891; Cope, 1900).

Monterey (Cope, 1885).

San Diego (Stejneger, 1891).

Tamaulipas:

Matamoros (Stejneger, 1891).

Charco Escondido (Cope, 1900).

From the above data it appears that *v. marmoratus* is confined to the semi-arid region on either side of the Rio Grande as far west as El Paso, and on the east as far south as Monterey. *V. variabilis* probably occurs

nearly to Matamoros on the coast, following the sub-tropical vegetation, but apparently it has been taken no farther north than Antiguo Morelos, Tamaulipas (EHT & HMS).

A structural character of much importance in the identification of *variabilis*, but apparently overlooked in previous publications, is a deep skin-fold back of the insertions of the hind legs. It is well pronounced in both subspecies of *variabilis* and also in *couchii*.

SCALE COUNTS OF *Sceloporus variabilis marmoratus* (Hallowell).

Number.....	226	4620	4787	4788	4789	4790	4791	4792	4793	4794	4795
Dorsals.....	67	60+	62	65	64	64	67	68	67	64	64
Rows dorsals.....	18	17	15	17	18	17	18	15	16	18	18
Snout to vent.....	46.0	36.0	44.5	44.3	46.0	39.0	35.5	41.5	38.3	49.0	29.0
Sex.....	♂	♂	♂	♀	♂	♂	♀	♀	♂	♀	♂

Number.....	4903	4904	4905	4906	4907	4908	4909	4910	4911	4912	KU
Dorsals.....	64	65	65	65	67	64	63	65	65	65	68
Rows dorsals.....	19	19	16	19	22	17	15	16	18	18	16
Snout to vent.....	43.0	49.0	42.0	41.0	38.0	39.3	35.0	37.5	41.5	33.5	50.5
Sex.....	♂	♂	♂	♂	♂	♀	♀	♂	♂	♀	♂

Number.....	KU	KU	KU	KU	KU	KU	KU	KU
Dorsals.....	15354	15355	11005	11006	11007	11008	12467	12468
Dorsals.....	65	62	64	65	63	68	69	64
Rows dorsals.....	18	16	16	17	19	17+	18	16
Snout to vent.....	48.0	47.5	46.5	52.5	45.5	49.5	50.0	47.0
Sex.....	♂	♀	♂	♂	♀	♀	♂	♀

*Sceloporus variabilis variabilis* Wiegmann.

The locality records for *variabilis variabilis* in the collection are as follows:

Hidalgo:

4 miles S. of Jacala, June 16 (512, 514, 516).

Puebla:

Near Zapotitlán, July 27 (3209).

San Luis Potosi:

5 miles S. of Valles, June 13 (457, 458, 460, 461, 464-466, 544-549).

Tamaulipas:

South of Antiguo Morelos, June 12 (407-417, 419, 420).

Vera Cruz:

5 miles E. of Jalapa, July 16 (2099).

Tierra Colorada, July 15 (2220-2225, 2227, 2229-2230, 2418-2420).

Puente Nacional, July 14 (2231-2236).

1½-2 miles E. of Acultzingo, July 22 (3162).

Near Totalco, July 19 (2555).

Specimens were frequently found on palmettos, as frequently on the



fallen logs as on the standing trees. All were found in regions distinctly tropical or subtropical.

Apparently *v. variabilis* has not been reported from the states of Hidalgo and San Luis Potosi.

The specimens from Antigua Morelos were apparently taken somewhat farther north than the species has before been reported, although it may be expected to extend farther north in reality.

SCALE COUNTS OF *Sceloporus variabilis variabilis* Wiegmann.

Number.....	408	409	410	417	457	458	461	465	466	512
Dorsals.....	56	54	56	55	51	54	54	48	57	56
Rows dorsals.....	15	13	14	14	14	14	15	14	14	14
Snout to vent.....	64.0	55.5	62.0	58.0	51.5	52.0	65.0	41.5	36.0	63.0
Sex.....	♂	♀	♂	♀	♀	♀	♂	♀	♂	♂

Number.....	514	516	546	547	2220	2221	2222	2223	2224	2225
Dorsals.....	58	57	49	51	57	57	60	51	54	49
Rows dorsals.....	15	15	13	12	14	14	15	15	13	14
Snout to vent.....	51.0	60.5	65.0	63.0	53.0	67.0	56.0	59.0	50.0	69.0
Sex.....	♀	♂	♂	♀	♀	♂	♂	♂	♀	♂

Number.....	2229	2230	2231	2232	2233	2234	2235	2236	2419	3162
Dorsals.....	55	55	56	55	53	52	60	56	55	53
Rows dorsals.....	14	13	14	13	14	14	15	15	15	15
Snout to vent.....	51.0	67.0	68.0	63.5	61.0	67.0	69.0	65.5	50.0	61.0
Sex.....	♀	♂	♂	♂	♂	♂	♂	♂	♀	♂

*Sceloporus couchii* Baird.

Seventy-four specimens of this rare species were collected in the hills about five miles southwest of Sabinas Hidalgo, Nuevo León, Mexico, on June 8-9, and September 1, 1932 (nos. 287-305, 307, 309-311, 313, 314, 316, 317, 319-321, 438, 439, 441-443, 445, 4623-4657). They were collected for the most part on rocks and cliffs and to almost the highest elevations in the mountains. Females were much less wary than males.

The sexual dimorphism in this species with regard to color is most remarkable. The females are uniform olive gray or bluish above, with a series of seven or eight rounded dark spots on each side of the median dorsal line. The spots anteriorly are very small, but they gradually enlarge posteriorly, reaching their maximum size at the base of the tail. There is a dim, slightly darker, broad stripe extending on each side from the upper edge of the tympanum to the base of the tail. The ventral surfaces are tinged with blue, sometimes with dim white oblique stripes on the chin. In a few specimens the dorsal spots on the body are nearly obsolete, but those on the base of the tail and immediately preceding it are constant.

In some specimens there are numerous flecks of black in addition to the two dorsal rows of spots.

In males the dorsal spots, if indicated at all, are very dim; the back, however, is not uniformly colored, but flecked with much black, so it appears quite dull; the lateral dark stripe is black, very prominent, and bordered above by a definite white streak which fades medially into the dorsal gray-blue. A perpendicular blue line passes from a point in front of the insertion of the foreleg to, or nearly to, the dorsolateral light line, and is followed posteriorly by another perpendicular light blue line passing toward the dorsolateral line, but not reaching it; a narrow black line separates the two perpendicular light lines; in front of the anterior light line is a large, rounded, deep black spot, enclosing a small, rounded, bright blue spot; the limbs are banded, the anterior limbs more distinctly so than the posterior; the anterior dark band on the foreleg is very distinct; a longitudinal light band is present on the posterior surface of the femur, bordered above and below by an incomplete narrow dark band (present also in females). The entire ventral surfaces are tinged with bluish; a darker blue area, the anterior fourth and posterior edge of which are very dark, is present on each side of the belly, extending from the axilla to the groin, and is bordered medially by a slightly darker band; the anterior part of the gular region is marked with oblique white lines passing from the labial region posteriorly to the median ventral line.

A structural character remarkably dimorphic in the two sexes, previously noted by Cope (1900), is the length of the 4th toe, which is several millimeters shorter in females than in males (see table below).

A peculiar structural character which *couchii* bears in common with *variabilis* et al. is a small dermal fold behind the insertion of the hind leg.

Other locality records for *couchii* are from places not far distant from Sabinas Hidalgo: Duval County, Texas (Cope, 1888); Santa Catarina, Nuevo León (Baird, 1859a); Pesquiera Grande, Nuevo León (Baird, 1859b); Monclova, Coahuila (Garman, 1887).

Boulenger (1897) remarks that a gular fold is frequently present in *couchii* and also in *variabilis*. Since the presence of a gular fold is the chief character distinguishing *Uta* from *Sceloporus*, such a remark is apt to be misleading. The so-called "gular fold" of certain *Scelopori* is formed by continuations of the lateral cervical folds, and it is never modified by the presence of granular scales, except on the sides of the neck in the pouch formed by the overlapping of the fold. In *variabilis*, *couchii* and *merriami* there is a series of granular scales, continuous with those of the lateral pouches, intercalated between the large scales in front of the humerus three or four rows behind the anterior edge of the lateral pouch. This rudimentary fold represents the only indication of the gular fold that occurs in *Uta*. It is visible only in a very few *Scelopori*, and at best only in front of the shoulder. So far as I am aware, it is most distinct in *couchii* and *merriami*.

Based upon the appearance of this rudimentary fold in these species of *Scelopori*, it is logical to assume that they approach *Uta* in actual relationships. It may be noted that the dorsal scales are greatly reduced in size

in all the species concerned, approaching the granular condition found in *Uta*.

MEASUREMENTS (IN MM.) AND SCALE COUNTS OF *Sceloporus couchii* Baird.

Number.....	288	290	293	303	304	307	310	313
Snout to vent.....	47.0	48.0	48.5	47.5	49.5	45.5	47.0	50.0
Tail.....	81.5	84.0	72.5	89.0	70.0	78.0	82.0	93.5
Snout to occiput.....	9.5	10.0	10.25	10.0	10.5	10.5	10.5	11.0
Snout to ear.....	11.5	12.0	11.5	11.5	13.0	11.5	12.0	12.5
4th toe.....	14.0	14.0	14.0	13.5	14.0	13.5	13.5	17.0
5th toe.....	6.5	6.5	6.5	6.0	7.0	7.0	6.5	8.0
Tibia.....	10.5	11.0	11.0	10.5	11.0	10.5	10.75	13.0
Dorsals.....	80	71	69	77	74	70	73	74
Scales about body.....	83	78	80	85	81	76	89	89
Scales to shielded part of head.....	18	17	17	18	19	18	19	18
Femoral pores.....	15-16	17-18	16-17	16-18	16-16	16-?	17-17	16-16
Sex.....	♀	♀	♀	♀	♀	♀	♀	♂

Number.....	317	319	320	438	4623	4625	4628	4629
Snout to vent.....	50.0	57.5	55.0	47.0	55.0	48.5	56.5	56.0
Tail.....	103.0	88.0	101.0	65.0	91.0	100.0	100.0	119.0
Snout to occiput.....	11.5	11.0	11.5	9.5	11.5	11.0	12.0	11.5
Snout to ear.....	14.5	14.0	14.0	12.0	14.0	13.0	14.0	14.0
4th toe.....	16.5	17.5	16.5	13.5	18.0	14.7	17.0	18.0
5th toe.....	8.0	8.0	7.5	6.5	8.5	7.0	8.5	8.5
Tibia.....	13.0	13.0	13.0	10.5	14.0	12.5	13.0	13.5
Dorsals.....	82	80	75	77	73	77	77	74
Scales about body.....	84	82	81	86	90	92	92	83
Scales to shielded part of head.....	20	18	19	19	20	21	17	18
Femoral pores.....	15-17	15-16	16-17	16-?	17-18	15-?	14-16	17-17
Sex.....	♂	♂	♂	♀	♂	♂	♂	♂

Dr. Edward H. Taylor has been of constant aid in many ways while I have been studying these lizards, and I here express my greatest appreciation to him for his efforts. Mr. C. D. Bunker, curator of the Dyche Natural History Museum of the University of Kansas, has been extremely kind in the loan of specimens for comparisons.

BIBLIOGRAPHY.

BAIRD, SPENCER F.

1859a. Description of new genera and species of North American Lizards in the museum of the Smithsonian Institution. Proc. Phila. Acad. Nat. Sci. 1858 : 253-256.

1859b. Reptiles of the boundary. U. S.-Mexico Boundary Survey 2 : 1-35, 41 pls.

BOULENGER, G. A.

1885. Catalogue of the lizards in the British Museum (Natural History). Second Edition. London. Taylor and Francis. Vol. 2 : xiv, 498 pp., 24 pls.
- 

1897. A revision of the lizards of the genus *Sceloporus*. Proc. Zool. Soc. London 1897 : 474-522, pl. 33.

COPE, E. D.

1885. A contribution to the herpetology of Mexico. Proc. Amer. Philos. Soc. 22 : 379-404.
- 

1888. Catalogue of the batrachia and reptilia brought by William Taylor from San Diego, Texas. Proc. U. S. N. M. 11 : 395-398.
- 

1900. The crocodilians, lizards and snakes of North America. Rept. U. S. N. M. for 1898 : 153-1270, 36 pls., 347 text figs.

GARMAN, SAMUEL.

1887. Reptiles and batrachians from Texas and Mexico. Essex Inst. Bul. 19 : 20 pp.

GÜNTHER, ALBERT C. L. G.

1890. Reptilia and batrachia. Biologia Centrali-Americana. xx, 326 pp., 76 pls.

HALLOWELL, EDWARD.

1854. Descriptions of new species of reptiles inhabiting North America. Proc. Phila. Acad. Nat. Sci. 1852 : 177-182.

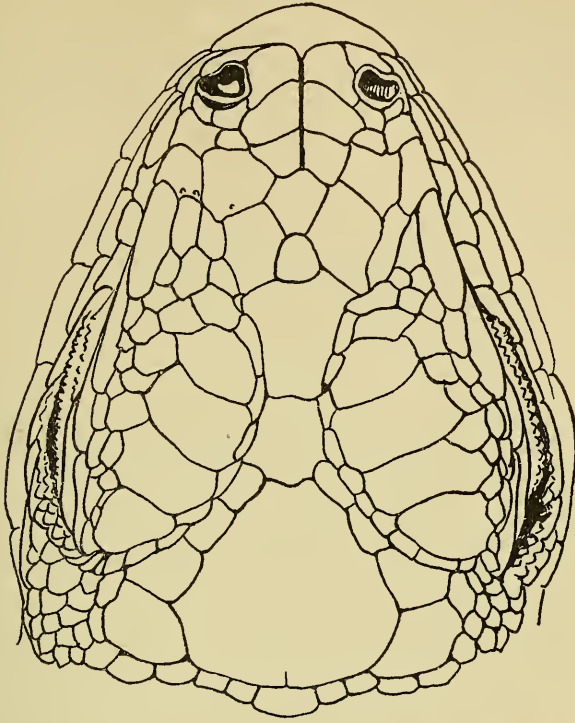
STEJNEGER, LEONHARD H.

1891. Notes on *Sceloporus variabilis* and its geographical distribution in the United States. Proc. U. S. N. M. 14 (873) : 485-488.

STRECKER, JOHN K.

1915. Reptiles and amphibians of Texas. Baylor Univ. Bul. 18(4) : 1-82.
- 

1922. An annotated catalogue of the amphibians and reptiles of Bexar County, Texas. Bul. Sci. Soc. San Antonio no. 4 : 1-31, 4 pls.



Text fig. 1. *Sceloporus jalapæ* Günther. Dorsal view of cephalic scales of female (no. 3160). Actual length of figured portion 9 mm.

